AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
	1		2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0004	28 JUN 2000		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
US ARMY ENGINEER DISTRICT, FORT WORTH ATTN: CESWF-CT (RM 2A19) PO BOX 17300 FORT WORTH, TX 76102-0300			

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*	(X)	9A. AMENDMENT OF SOLICIATION NO.
	☒	DACA63-00-B-0021
		9B. DATED *(SEE ITEM 11)* 15 MAY 2000
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 11)*
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a)By completing items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

The Solicitation for SOLDIER SERVICE CENTER, FORT HOOD, TEXAS, is amended as follows:

See continuation Sheets:

NOTE: The bid opening time and date remains "2 pm local time, 11 July 2000" as previously announced.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	16C. DATE SIGNED

Item 14. Continued.

CHANGES TO THE SPECIFICATIONS

1. Write-in Change – In Sections 03100 - STRUCTURAL CONCRETE FORMWORK and 03300 – CAST-IN-PLACE STRUCTURAL CONCRETE delete the notations "**[Am#3]**" where they occur in these sections.

2. Replacement Sections - Replace the following sections with the accompanying new sections of the same number and title, bearing the notation "ACCOMPANYING AMENDMENT NO. 0004 TO SOLICITATION NO. DACA63-00-B-0021:"

SECTION 09900 PAINTING, GENERAL
SECTION 10101 MISCELLANEOUS ITEMS

CHANGES TO THE DRAWINGS

3. Write-in Change to Sequence No. 2 (Sh C2 of 30).- In the "DESCRIPTION OF ALL BID OPTIONS:" notes, change BID OPTION #6 to read as follows:

"BID OPTION #6. ADDITIONAL LANDSCAPING (TREES) AS SHOWN ON **SHT L-1A**."

4. Reference Amendment No. 0003 – Write-in clarification:
The following six (6) drawings issued by Amendment No. 0003 indicated the titles to be "NOT USED" in the write-up of the amendment. Change the titles for these six (6) drawings as shown on this list to read as follows:

s02_3.cal Seq 89 S-2 MISCELLANEOUS FRAMING DETAILS 1
s07_3.cal Seq 94 S-7 FOUNDATION SECTIONS & DETAILS III
s11_3.cal Seq 98 S-11 2nd & 3rd FLOOR SECTIONS II
s14_3.cal Seq 101 S-14 INTERMEDIATE FLOOR SECTIONS I
s18_3.cal Seq 105 S-18 ROOF FRAMING SECTIONS 1
s20_3.cal Seq 107 S-20 MISCELOLANEOUS DETAILS 2

END OF AMENDMENT

SECTION 09900

PAINTING, GENERAL
07/92
AMENDMENT #0004

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

ACGIH Limit Values	(1999) Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 150	(1998a) Portland Cement
ASTM D 3273	(1994) Resistance to Growth of Mold on the Surface of Interior Coating in an Environmental Chamber
ASTM D 3274	(1995) Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation
ASTM D 4214	(1998) Evaluating Degree of Chalking of Exterior Paint Films
ASTM D 4258	(1999) Surface Cleaning Concrete for Coating

COMMERCIAL ITEM DESCRIPTIONS (CID)

CID A-A-1500	(Rev A; Notice 1) Sealer, Surface (Latex Block Filler)
CID A-A-1546	(Rev A; Canc. Notice 1)) Rubbing Varnish
CID A-A-1632	(Basic) Varnish, Asphalt
CID A-A-1788	(Canc. Notice 1)) Varnish, Oil; Interior
CID A-A-2246	(Rev B) Paint, Latex
CID A-A-2247	(Basic) Paint, Latex (Semigloss, Interior)
CID A-A-2248	(Basic) Paint, Latex, (Flat, Interior)

CID A-A-2335	(Canc. Notice 1) Sealer, Surface (Varnish Type, Wood and Cork Floors)
CID A-A-2336	(Rev A) Primer Coating (Alkyd, Exterior Wood, White and Tints)
CID A-A-2339	(Canc. Notice 1) Stain (Wood, Solvent-Dye Type)
CID A-A-2542	Sealer, Terrazzo and Concrete Floors, Waterbased
CID A-A-2834	(Basic) Urethane, Waterborne (Low VOC, Clear)
CID A-A-2867	Coating, Polyurethane, Single Component Moisture Cure, Alipathic
CID A-A-2962	(Rev A) Enamel, Alkyd (Metric)
CID A-A-2994	Primer Coating, Interior, for Walls and Wood

FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1	(Rev J) Obstruction Marking and Lighting

FEDERAL SPECIFICATIONS (FS)

FS TT-C-542	(Rev E) Coating, Polyurethane, Oil-Free, Moisture Curing
FS TT-C-555	(Rev B; Am 1) Coating, Textured (for Interior and Exterior Masonry Surfaces)
FS TT-E-2784	(Rev A) Enamel (Acrylic-Emulsion, Exterior Gloss and Semigloss) (Metric)
FS TT-P-28	(Rev G; Notice 1) Paint, Aluminum, Heat Resisting (1200 Degrees F.)
FS TT-S-708	(Rev A; Am 2; Notice 1) Stain, Oil; Semi-Transparent, Wood, Exterior
FS TT-S-001992	(Basic; Notice 1) Stain, Latex, Exterior for Wood Surfaces

MAPLE FLOORING MANUFACTURERS ASSOCIATION (MFMA)

MFMA-03	(1997) Floor Sealer and Finish List and Specifications for Heavy Duty and Gymnasium Sealers and Finishes for Maple, Beech and Birch Floors: MFMA Floor Finish List Number 16

THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC Paint 5	(1995) Zinc Dust, Zinc Oxide and Phenolic Varnish Paint
SSPC Paint 18	(1991) Chlorinated Rubber Intermediate Coat Paint
SSPC Paint 20	(1991) Zinc-Rich Primers (Type I - "Inorganic" and Type II - "Organic")
SSPC Paint 23	(1991) Latex Primer for Steel surfaces
SSPC Paint 25	(1991) Red Iron Oxide, Zinc Oxide, Raw Linseed Oil and Alkyd Primer (Without Lead and Chromate Pigments)
SSPC SP 1	(1982) Solvent Cleaning
SSPC SP 2	(1995) Hand Tool Cleaning
SSPC SP 3	(1995) Power Tool Cleaning
SSPC SP 6/NACE 3	(1994) Commercial Blast Cleaning
SSPC SP 7/NACE 4	(1994) Brush-Off Blast Cleaning

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Paint; FIO.

The names, quantity represented, and intended use for the proprietary brands of materials proposed to be substituted for the specified materials when the required quantity of a particular batch is 50 gallons or less.

SD-06 Instructions

Mixing and Thinning; FIO. Application; FIO.

Manufacturer's current printed product description, material safety data sheets (MSDS) and technical data sheets for each coating system. Detailed mixing, thinning and application instructions, minimum and maximum application temperature, and curing and drying times between coats for epoxy, moisture-curing polyurethane, and liquid glaze coatings. Detailed application instructions for textured coatings shall be provided.

SD-09 Reports

Paint; FIO.

A statement as to the quantity represented and the intended use, plus the

following test report for batches in excess of 50 gallons:

a. A test report showing that the proposed batch to be used meets specified requirements:

b. A test report showing that a previous batch of the same formulation as the batch to be used met specified requirements, plus, on the proposed batch to be used, a report of test results for properties of weight per gallon, viscosity, fineness of grind, drying time, color, and gloss.

SD-13 Certificates

Lead; FIO. Mildewcide and Insecticide; FIO. Volatile Organic Compound (VOC) Content; FIO.

Certificate stating that paints for interior use contain no mercurial mildewcide or insecticide. Certificate stating that paints proposed for use contain not more than 0.06 percent lead by weight of the total nonvolatile. Certificate stating that paints proposed for use meet Federal VOC regulations and those of the of the local Air Pollution Control Districts having jurisdiction over the geographical area in which the project is located.

SD-14 Samples

Moisture-Curing Polyurethane; GA.

A complete moisture-curing polyurethane system applied to a panel of the same material as that on which the coating will be applied in the work and for each color specified. The sample panels will be used for quality control in applying the system.

Paint; GA.

While the material is at the site or source of supply, and at a time agreeable to the Contractor and the Contracting Officer, a 1 quart sample of each color and batch, except for quantities of 50 gallons or less, shall be taken by random selection from the sealed containers by the Contractor in the presence of a representative of the Contracting Officer. The contents of the containers to be sampled shall be thoroughly mixed to ensure that the sample is representative. Samples shall be identified by designated name, specification number, manufacturer name and address, batch number, project contract number, intended use, and quantity involved.

SAMPLES TO BE SUBMITTED FOR APPROVAL TO:
ARCHITECTURAL SECTION
DESIGN BRANCH
FORT WORTH DISTRICT

1.3 PACKAGING, LABELING, AND STORING

Paints shall be in sealed containers that legibly show the designated name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name of manufacturer. Pigmented paints shall be furnished in containers not larger than 5 gallons.

Paints and thinner shall be stored in accordance with the manufacturer's written directions and as a minimum stored off the ground, under cover, with sufficient ventilation to prevent the buildup of flammable vapors and at temperatures between 40 and 95 degrees F. Paints shall be stored on the project site or segregated at the source of supply sufficiently in advance of need to allow 30 days for testing.

1.4 APPROVAL OF MATERIALS

When samples are tested, approval of materials will be based on tests of the samples; otherwise, materials will be approved based on test reports furnished with them. If materials are approved based on test reports furnished, samples will be retained by the Government for testing should the materials appear defective during or after application. In addition to any other remedies under the contract the cost of retesting defective materials will be at the Contractor's expense.

1.5 ENVIRONMENTAL CONDITIONS

Unless otherwise recommended by the paint manufacturer, the ambient temperature shall be between 45 and 95 degrees F when applying coatings other than water-thinned, epoxy, and moisture-curing polyurethane coatings. Water-thinned coatings shall be applied only when ambient temperature is between 50 and 90 degrees F. Epoxy, and moisture-curing polyurethane coatings shall be applied only within the minimum and maximum temperatures recommended by the coating manufacturer. Moisture-curing polyurethane shall not be applied when the relative humidity is below 30 percent.

1.6 SAFETY AND HEALTH

Work shall comply with applicable Federal, State, and local laws and regulations, and with the ACCIDENT PREVENTION PLAN, including the Activity Hazard Analysis as specified in the CONTRACT CLAUSES. The Activity Hazard Analysis shall include analyses of the potential impact of painting operations on painting personnel and on others involved in and adjacent to the work zone.

1.6.1 Worker Exposures

Exposure of workers to hazardous chemical substances shall not exceed limits established by ACGIH Limit Values, or as required by a more stringent applicable regulation.

1.6.2 Toxic Compounds

Toxic products having ineffective physiological warning properties, such as no or low odor or irritation levels, shall not be used unless approved by the Contracting Officer.

1.6.3 Training

Workers having access to an affected work area shall be informed of the contents of the applicable material data safety sheets (MDSS) and shall be informed of potential health and safety hazard and protective controls associated with materials used on the project. An affected work area is one which may receive mists and odors from the painting operations. Workers involved in preparation, painting and clean-up shall be trained in

the safe handling and application, and the exposure limit, for each material which the worker will use in the project. Personnel having a need to use respirators and masks shall be instructed in the use and maintenance of such equipment.

1.6.4 Coordination

Work shall be coordinated to minimize exposure of building occupants, other Contractor personnel, and visitors to mists and odors from preparation, painting and clean-up operations.

PART 2 PRODUCTS

2.1 PAINT

The term "paint" as used herein includes emulsions, enamels, paints, stains, varnishes, sealers, cement-emulsion filler, and other coatings, whether used as prime, intermediate, or finish coat. Paint shall conform to the requirements listed in the painting schedules at the end of this section, except when the required amount of a material of a particular batch is 50 gallons or less, an approved first-line proprietary paint material with similar intended formulation, usage and color to that specified may be used. The proprietary paint material shall be of the same type, color, and be equivalent in performance of the type specified in the painting schedules. Equivalent performance shall be within 10 percent of the values for the percent of pigment, the percent of solid content (percent of pigment by weight and the percent of nonvolativle vehicle by weight), the viscosity (in K.U.'s), the gloss, and the drying times for set-to-touch, recoating, and dry hard.

2.1.1 Colors and Tints

Colors shall be as selected from manufacturer's standard colors, as indicated. Manufacturer's standard color is for identification of color only. Tinting of epoxy and urethane paints shall be done by the manufacturer. Stains shall conform in shade to manufacturer's standard color. The color of the undercoats shall vary slightly from the color of the next coat.

2.1.2 Mildewcide and Insecticide

Paint specified for all coats applied to fabrics and vapor barrier jackets over insulation shall contain a mildewcide that will not adversely affect the color, texture, or durability of the coating. The mildewcide shall be incorporated into the paint by the manufacturer and shall attain a surface disfigurement rating of 8 or greater when tested in accordance with ASTM D 3273 and evaluated in accordance with ASTM D 3274. Mercurial mildewcide shall not be used in interior paint. Insecticides shall not be used in paint.

2.1.3 Lead

Paints containing lead in excess of 0.06 percent by weight of the total nonvolatile content (calculated as lead metal) shall not be used.

2.1.4 Chromium

Paints containing zinc chromate or strontium chromate pigments shall not be used.

2.1.5 Volatile Organic Compound (VOC) Content

Paints shall comply with applicable federal, state and local laws enacted to insure compliance with Federal Clean Air Standards and shall conform to the restrictions of the local air pollution control authority.

PART 3 EXECUTION

3.1 PROTECTION OF AREAS NOT TO BE PAINTED

Items not to be painted which are in contact with or adjacent to painted surfaces shall be removed or protected prior to surface preparation and painting operations. Items removed prior to painting shall be replaced when painting is completed. Following completion of painting, workmen skilled in the trades involved shall reinstall removed items. Surfaces contaminated by coating materials shall be restored to original condition.

3.2 SURFACE PREPARATION

Surfaces to be painted shall be clean and free of foreign matter before application of paint or surface treatments. Oil and grease shall be removed prior to mechanical cleaning. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces. Exposed ferrous metals such as nail heads on or in contact with surfaces to be painted with water-thinned paints, shall be spot-primmed with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas.

3.2.1 Concrete, Stucco and Masonry Surfaces

Exterior masonry surfaces shall be allowed to dry at least 30 days before water repellant sealing (painting). Surfaces shall be cleaned in accordance with\-ASTM D 4258-\. Glaze, efflorescence, laitance, dirt, grease, oil, asphalt, surface deposits of free iron and other foreign coatings shall be acid-etched or mechanically abraded as specified by the sealing manufacturer, rinsed with water, allowed to dry, and treated with the manufacturer's recommended conditioner prior to application of the first coat. Protection of areas not to be sealed (painted) is noted in paragraph 3.1.

3.2.2 Ferrous Surfaces

Ferrous surfaces including those that have been shop-coated, shall be solvent-cleaned or detergent-washed in accordance with SSPC SP 1. Surfaces that contain loose rust, loose mill scale, and other foreign substances shall be cleaned mechanically with hand tools according to SSPC SP 2, power tools according to SSPC SP 3 or by sandblasting according to SSPC SP 7/NACE 4. Shop-coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.

3.2.3 Nonferrous Metallic Surfaces

Galvanized, aluminum and aluminum-alloy, lead, copper, and other nonferrous metal surfaces shall be solvent-cleaned or detergent-washed in accordance

with SSPC SP 1.

3.2.4 Gypsum Board Surfaces

Gypsum board surfaces shall be dry and shall have all loose dirt and dust removed by brushing with a soft brush, rubbing with a cloth, or vacuum-cleaning prior to application of the first-coat material. A damp cloth or sponge may be used if paint will be water-based.

3.2.5 Mastic-Type Surfaces

Mastic-type surfaces shall be prepared by removing foreign material.

3.2.6 Plaster Surfaces

Plaster shall age at least 30 days before painting. Plaster shall be clean and free from loose matter and shall have an instrument-measured moisture content not exceeding 8 percent.

3.2.7 Wood Surfaces

Wood surfaces shall be cleaned of foreign matter. Moisture content of the wood shall not exceed 12 percent as measured by a moisture meter, unless otherwise authorized. Wood surfaces adjacent to surfaces to receive water-thinned paints shall be primed and/or touched up before applying water-thinned paints. Small, dry seasoned knots shall be scraped, cleaned, and given a thin coat of commercial knot sealer, before application of the priming coat. Pitch on large, open, unseasoned knots and all other beads or streaks of pitch shall be scraped off, or, if it is still soft, removed with mineral spirits or turpentine, and the resinous area shall be thinly coated with knot sealer. Finishing nails shall be set, and all holes and surface imperfections shall be primed. After priming, holes and imperfections in finish surfaces shall be filled with putty or plastic wood filler, colored to match the finish coat if natural finish is required, allowed to dry, and sanded smooth. Putty or wood filler shall be compatible with subsequent coatings.

3.2.7.1 Interior Wood Stain

Interior wood surfaces to receive stain shall be sanded. Oak and other open-grain wood to receive stain shall be given a coat of wood filler not less than 8 hours before the application of stain; excess filler shall be removed and the surface sanded smooth.

3.2.8 Previously Painted Surfaces

Previously painted surfaces [specified to be repainted] [damaged during construction] shall be thoroughly cleaned of all grease, dirt, dust or other foreign matter. Blistering, cracking, flaking and peeling or other deteriorated coatings shall be removed. Slick surfaces shall be roughened. Damaged areas such as, but not limited to, nail holes, cracks, chips, and spalls shall be repaired with suitable material to match adjacent undamaged areas. Edges of chipped paint shall be feather edged and sanded smooth. Rusty metal surfaces shall be cleaned as per SSPC requirements. Solvent, mechanical, or chemical cleaning methods shall be used to provide surfaces suitable for painting. Chalk shall be removed so that when tested in accordance with ASTM D 4214, the chalk resistance rating is no less than 8.

New, proposed coatings shall be compatible with existing coatings. If existing surfaces are glossy, the gloss shall be reduced.

3.3 MIXING AND THINNING

When thinning is approved as necessary to suit surface, temperature, weather conditions, or application methods, paints may be thinned in accordance with the manufacturer's directions. When thinning is allowed, paints shall be thinned immediately prior to application with not more than 1 pint of suitable thinner per gallon. The use of thinner shall not relieve the Contractor from obtaining complete hiding, full film thickness, or required gloss. Thinning shall not cause the paint to exceed limits on volatile organic compounds. Paints of different manufacturers shall not be mixed.

3.3.1 Cement-Emulsion Filler Coat

Cement and aggregate shall be dry-mixed so that uniform distribution and intermixing are obtained. Mixing liquid and one-half of the total amount of water shall be premixed and added gradually to the white portland cement and aggregate with constant stirring until a thick, smooth material is obtained. Emulsion paint shall then be added to the mixture and stirred until uniformity is obtained. The blend shall have a thick, creamy consistency. The remainder of the water shall be added if necessary to obtain a material with adequate application properties. Blending resin emulsion or emulsion paint with any other component shall be done with caution; too rapid an agitation will cause air entrapment and foaming.

3.4 APPLICATION

Painting practices shall comply with applicable federal, state and local laws enacted to insure compliance with Federal Clean Air Standards. Unless otherwise specified or recommended by the paint manufacturer, paint may be applied by brush, roller, or spray. At the time of application, paint shall show no signs of deterioration. Uniform suspension of pigments shall be maintained during application. Each coat of paint shall be applied so dry film shall be of uniform thickness and free from runs, drops, ridges, waves, pinholes or other voids, laps, brush marks, and variations in color, texture, and finish. Hiding shall be complete. Rollers for applying paints and enamels shall be of a type designed for the coating to be applied and the surface to be coated. Special attention shall be given to insure that all edges, corners, crevices, welds, and rivets receive a film thickness equal to that of adjacent painted surfaces. Paints, except water-thinned types, shall be applied only to surfaces that are completely free of moisture as determined by sight or touch.

3.4.1 Ventilation

Affected areas shall be ventilated during paint application so that workers exposure to chemical substances shall not exceed limits as established by ACGIH Limit Values, or as required by a more stringent applicable regulation. Interior work zones having a volume of 10,000 cubic feet or less shall be ventilated at a minimum of 2 air exchanges per hour. Ventilation in larger work zones shall be maintained by means of mechanical exhaust. Solvent vapors shall be exhausted outdoors, away from air intakes and workers. Return air inlets in the work zone shall be temporarily sealed before start of work until the coatings have dried.

3.4.2 Respirators

Operators and personnel in the vicinity of operating paint sprayers shall wear respirators.

3.4.3 First Coat

The first coat on plaster, gypsum wallboard, and other surfaces shall include repeated touching up of suction spots or overall application of primer or sealer to produce uniform color and gloss. Excess sealer shall be wiped off after each application. The first coat on both faces of wood doors shall be applied at essentially the same time. Glazed doors and sashes shall be given the specified coating system within 3 weeks of the time they are glazed, but not before the glazing material has set; paint shall overlay glass about 70 mils all around. Each varnish coat shall be sanded lightly prior to application of subsequent coats.

3.4.4 Timing

Surfaces that have been cleaned, pretreated, and otherwise prepared for painting shall be given a coat of the specified first coat as soon as practical after such pretreatment has been completed, but prior to any deterioration of the prepared surface. Sufficient time shall elapse between successive coats to permit proper drying. This period shall be modified as necessary to suit weather conditions. Oil-based or oleoresinous solvent-type paints shall be considered dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and the application of another coat of paint does not cause the undercoat to lift or lose adhesion. Manufacturer's instructions for application, curing and drying time between coats of two-component systems shall be followed.

3.4.5 Stains

Stain shall be applied at the rate specified in the manufacturer's printed directions. Oil-type stain shall be applied by brushing with the grain for the full length of the board or course of siding.

3.4.6 Fillers

Concrete and masonry surface voids shall be filled; however, surface irregularities need not be completely filled. The dried filler shall be uniform and free of pinholes. Filler shall not be applied over caulking compound.

3.4.6.1 Cement-Emulsion Filler

Immediately before filler application, surfaces shall be dampened uniformly and thoroughly, with no free surface water visible, by several applications of potable water with a fog spray, allowing time between the sprayings for water to be absorbed. Cement-emulsion filler shall be scrubbed into the surface vigorously with a stiff-bristled brush having tampico or palmyra bristles not longer than 2-1/2 inches. At least 24 hours shall elapse before applying exterior emulsion paint over cement-emulsion filler. When the ambient temperature is over 85 degrees F, cement-emulsion filler surfaces shall be dampened lightly with a fog spray of potable water

immediately prior to application of the subsequent paint coat.

3.4.6.2 Latex Filler

Latex filler, CID A-A-1500, shall be applied according to the manufacturer's instructions. Surface voids shall be filled . The filler shall be allowed to dry the length of time specified by the manufacturer prior to applying successive coats of paint. Two coats may be necessary to cover.

3.4.7 Textured Coating

AM#1 Application of textured coating, FS TT-C-555, shall be as specified in the manufacturer's printed directions at a rate of 45-55 **square** feet per gallon.

3.4.8 Ferrous-Metal Primer

Primer for ferrous-metal shall be applied to ferrous surfaces to receive paint other than asphalt varnish prior to deterioration of the prepared surface. The semitransparent film applied to some pipes and tubing at the mill is not to be considered a shop coat, but shall be overcoated with the specified ferrous-metal primer prior to application of finish coats.

3.5 PIPE COLOR CODE MARKING

Pipes in exposed areas and in accessible pipe spaces shall be provided with color band and titles adjacent to all valves, except those provided at plumbing fixtures, at not more than 40 foot spacing on straight pipe runs, adjacent to change in direction, and on both sides where pipes pass through walls or floors. Color code marking shall be of the color listed in TABLE I and the size listed in TABLE II. The arrows shall be installed adjacent to each band to indicate the direction of flow in the pipe. The legends shall be printed in upper-case black letters as listed in TABLE I. Letter sizes shall be as listed in TABLE II. Marking shall be painted or applied using colored, pressure-sensitive adhesive markers of standard manufacture. Paint shall be as specified for insulated and uninsulated piping.

Uninsulated pipes in the mechanical rooms shall be painted and labeled. Pipe paint color shall be the color indicated in the "Band" column of Table I. Pipe labels and arrows shall be as indicated in Table I. Uninsulated stainless steel and plastic piping shall not be painted, but shall be color coded in accordance with Table I. Insulated pipe with PVC insulation jacket cover need not be painted, but shall be color coded in accordance with Table I.

Concrete equipment pads in the mechanical rooms shll be touched-up as necessary, after equipment installation. Color of the equipment pad shall be grey.

TABLE I. COLOR CODES FOR MARKING PIPE

Material	Band	Letters and Arrow*	Legend
Cold water (potable)	Green	White	POTABLE WATER
Fire protection water	Red	White	FIRE PR. WATER

TABLE I. COLOR CODES FOR MARKING PIPE

Material	Band	Letters and Arrow*	Legend
Fire Sprinkler Water	Red	White	FIRE SPR. WATER
Hot water (domestic)	Green	White	H.W.
Hot water recirculating (domestic)	Green	White	H.W.R.
High temp. water supply	Yellow	Black	H.T.W.S.
High temp. water return	Yellow	Black	H.T.W.R.
Boiler feed water	Yellow	Black	B.F.
Low temp. water supply (heating)	Yellow	Black	L.T.W.S.
Low temp. water return (heating)	Yellow	Black	L.T.W.R.
Condenser water supply	Green	White	COND. W.S.
Condenser water return	Green	White	COND. W.R.
Chilled water supply	Green	White	C.H.W.S.
Chilled water return	Green	White	C.H.W.R.
Treated water	Green	White	TR. WATER
Chemical feed	Yellow	Black	CH. FEED
Compressed air	Blue	White	COMP. AIR
Natural gas	Yellow	Black	NAT. GAS
Propane Gas	Yellow	Black	PROP. GAS
Refrigerants	Blue	White	REFRIGERANT
Fuel oil	Yellow	Black	FUEL OIL
Steam	Yellow	Black	STEAM
Condensate	Yellow	Black	CONDENSATE
AM#4			
Oral Evacuation	**White & Black Diagonal**	**Black**	**DLV**
Hydraulic fluid under **pressure**	**Yellow**	**Black**	**HYD. Fluid**
Dental Comopressed Air	**Yellow & White Diagonal**	**Black**	**DCA (90 psig)**

TABLE II. COLOR CODE MARKING SIZES

Outside Diameter of Pipe Covering (Inches)	Length of Color Band (inches)	Arrow Length x Width (Inches)	Size of Legend Letters and Numerals (Inches)
Less than 1-1/2	8	8 x 2-1/4	1/2
1-1/2 to 2-3/8	8	8 x 2-1/4	3/4
2-1/2 to 7-7/8	12	8 x 2-1/4	1-1/4
8 to 10	24	12 x 4-1/2	2-1/2
Over 10	32	12 x 4-1/2	3-1/2

3.6 MISCELLANEOUS PAINTING

3.6.1 Lettering

Lettering shall be provided as scheduled on the drawings, shall be block type, and shall be black enamel. Samples shall be approved before application.

3.7 SURFACES TO BE PAINTED

Surfaces listed in the painting schedules at the end of this section, other than those listed in paragraph SURFACES NOT TO BE PAINTED, shall be painted as scheduled.

3.8 SURFACES NOT TO BE PAINTED

Surfaces in the following areas shall not to be painted:
a) Exterior Poured Concrete
b) Concrete Floors
c) Exterior and interior aluminum
d) Aluminum or galvanized roofing
e) Exterior caulking and sealants
f) Door and window hardware unless specifically specified to be painted in Section 08700 - BUILDERS HARDWARE
g) Sprinkler heads and other fire detection elements
h) Safety nosings
i) Interior and exterior signs
j) Walls and ceilings in crawl spaces
k) Aluminum or sized vapor barrier jacketing over insulated pipes in unexposed locations that do not require color coding

3.9 CLEANING

Cloths, cotton waste and other debris that might constitute a fire hazard shall be placed in closed metal containers and removed at the end of each day. Upon completion of the work, staging, scaffolding, and containers shall be removed from the site or destroyed in an approved manner. Paint and other deposits on adjacent surfaces shall be removed and the entire job left clean and acceptable.

3.10 PAINTING SCHEDULES

The following painting schedules identify the surfaces to be painted and prescribe the paint to be used and the number of coats of paint to be applied. Contractor options are indicated by ------or------ between optional systems or coats.

EXTERIOR PAINTING SCHEDULE

Surface	First Coat	Second Coat	Third Coat
Concrete, unless otherwise specified.	FS TT-E-2784 Type III	FS TT-E-2784 Type III	None

EXTERIOR PAINTING SCHEDULE

Surface	First Coat	Second Coat	Third Coat
Wood: stain finish.	FS TT-S-708	None	None
	FS TT-S-001992 Class B	FS TT-S-001992 Class B	None
Ferrous metal unless otherwise specified	SSPC Paint 5	CID A-A-2962 Type I Class A Grade C	CID A-A-2962 Type 1 Class A Grade C
	SSPC Paint 25	CID A-A-2962 Type I Class A Grade C	CID A-A-2962 Type 1 Class A Grade C
	SSPC Paint 23	FS TT-E-2784 Type I	FS TT-E-2784 Type I
Galvanized metal.	FS TT-E-2784 Type III	FS TT-E-2784 Type I	FS TT-E-2784 Type I

INTERIOR PAINTING SCHEDULE

Surface	First Coat	Second Coat	Third Coat
Plaster, gypsum board, concrete, and concrete masonry units not requiring a not requiring a smooth finish, unless otherwise specified	CID A-A-2994 Type II	CID A-A-2246	CID A-A-2246 on gypsum board faced with recycled paper
		or	
		CID A-A-2247	CID A-A-2247 on gypsum board faced with recycled paper
		or	
		CID A-A-2248	CID A-A-2248 on gypsum board faced with recycled paper
Concrete masonry units requiring a smooth finish	CID A-A-1500	CID A-A-2994 Type II	CID A-A-2246
			-----or-----
			CID A-A-2247
			-----or-----
			CID A-A-2248
Ferrous Metal unless otherwise specified	SSPC Paint 25	CID A-A-2962 Type I Class A Grade C	CID A-A-2962 Type I Class A Grade C
	SSPC Paint 23	FS TT-E-2784 Type I	FS TT-E-2784 Type I

	CID A-A-2867	CID A-A-2867	None
Ferrous metal in concealed damp spaces or in exposed areas having unpainted adjacent surfaces as follows: [_____]	CID A-A-1632	None	None
Ferrous metal factory-primed mechanical and electrical equipment.	Two coats of paint as recommended by the equipment manufacturer		None
Galvanized metal:	FS TT-E-2784 Type III	FS TT-E-2784 Type I	None
	SSPC Paint 5	CID A-A-2962 Type I Class A Grade C	CID A-A-2962 Type I Class A Grade C
	SSPC Paint 25	CID A-A-2962 Type I Class A Grade C	CID A-A-2962 Type I Class A] Grade C
	SSPC Paint 23	FS TT-E-2784 Type I	FS TT-E-2784 Type I
Wood: stain and varnish finishes as follows: [_____]	Commercially available stain	CID A-A-1788 Type II Class I In addition a fourth coat of CID A-A-1788 Type II Class I	CID A-A-1788 Type II Class I
	CID A-A-2339	CID A-A-2834	CID A-A-2834

	Type I Class I	Type I Class I
	In addition a fourth coat of CID A-A-2834 Type I Class I	

-- End of Section --

SECTION 10101

MISCELLANEOUS ITEMS
AM# 0001
AM# 0004

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

THE ALUMINUM ASSOCIATION (AA)

AA-03	(Seep. 1980, 7th Ed.) Designation System for Aluminum Finishes

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 543	(1981) Slate Blackboards
ASTM E 814	(1983) Fire Tests of Through-Penetration Fire Stops

PORCELAIN ENAMEL INSTITUTE (PEI)

PEI S 100	(1965) Architectural Porcelain Enamel on Steel for Exterior Use.

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Manufacturer's Catalog Data; FIO.

SD-04 Drawings

Fabrication/Erection/Installation Drawings; FIO.

Drawings shall be submitted for each product listed in PART 2 PRODUCTS. Drawings shall show sizes, details of construction, method of construction, method of assembling, hardware materials, colors, method of mounting, location of each item, specifications for surface preparation and installation of items, and all other details pertinent to installation.

For each product, drawings shall identify all parts by name and material. Materials fabricated or delivered to the job site before approval of the drawings shall be subject to rejection.

SD-14 Samples

Presentation Cabinets; FIO.

Unless otherwise indicated, samples shall be full size, taken from manufacturer's stock, and be complete as required for installation. After approval, samples may be installed in the work provided each sample is clearly identified and its location recorded. Provide one sample of each product listed in PART 2 PRODUCTS unless otherwise indicated below:

Each type writing and tack board surface, 6 inches square.

Full-size wall clips or anchoring devices.

Each type of frame, 8 inches long.

Each type of trim and chalk trough, 8 inches long.

Each accessory, full size.

1.3 DELIVERY AND STORAGE

Materials and products shall be delivered to the site in the manufacturer's original unopened containers with brand name and type clearly marked. Materials and products shall be carefully handled and stored in dry, watertight enclosures.

1.4 FIELD MEASUREMENTS

Field measurements shall be taken prior to the preparation of drawings and fabrication to ensure proper fits.

PART 2 PRODUCTS

2.1 GENERAL

Supplementary parts necessary to complete each product item shall be included even though such work is not definitely shown or specified. The Contractor shall furnish to the proper trades all anchors, sockets, or fastenings required for securing items to other construction. Details and specifications of items for which standard products are available are representative guides of requirements for such items. Standard products, generally meeting such requirements, will be accepted, if details of construction and installation are approved by the Contracting Officer.

2.1.1 Metal Thickness

Gages of sheet iron and steel specified are U. S. Standard for sheet and plate. Extruded sections shall be at least 1/8-inch thick, unless otherwise specified or shown on the drawings.

2.1.2 Aluminum Frames

Aluminum frames, trim, and accessories shall be fabricated of 6063-T5 or T6 extruded aluminum alloy. Corners and connections shall be hairline miter or butt joints. Exposed aluminum surfaces shall have integrally colored finish. Satin finish shall be chemically etched medium matte anodic coating, Class II Architectural, 0.4 mil thick, in accordance with AA-03.

2.2 PRESENTATION CABINETS

Presentation cabinets shall be hardwood solids and veneer of mahogany. Cabinet size shall be 72-inches wide, 48-inches high and mounted as indicated on the drawing. Presentation cabinets shall be as located on the drawing, indicated by "screen." Presentation cabinets shall feature a porcelain steel writing surface, cork tackable display surfaces with a flip chart, mounted on inside of right hand door, and a concealed projection screen, mounted at the top of the interior of the cabinet.

2.3 TELEVISION WALL MOUNTS

ATelevision wall mounts shall be model TVWY35txr-BR with VCR 4BK tray as manufactured by "Bretford Manufacturing, Inc." (800-521-9614) or approved equal. This is a wall mounted yoke model to house a 30" to 35" television. base of tray shall be a minimum of 72-inches above finish floor. TV wall mounts shall be to the left of the presentation cabinets as located on the drawing (indicated by "screen"). Attachment of assembly shall be as recommended by manufacturer.

2.4 FIRE EXTINGUISHER CABINETS **AM# 0001 (FEC)**

2.4.1 Fire Extinguisher Cabinets

Metal fire extinguisher cabinets shall be furnished and installed where shown on the drawings or specified. Cabinets to be located in fire-rated walls shall be fire-rated type, fabricated in accordance with ASTM E 814, and shall be listed by an approved testing agency for 1- and 2-hour combustible and non-combustible wall systems. The testing agency's seal shall be affixed to each fire-rated cabinet. Cabinets shall be of the recessed type suitable for **AM# 0001 housing the extinguishers specified below.** Box and trim shall be of heavy gage rolled steel. Door shall be a rigid frame with full length piano type hinge and double strength (DSA) glass panel. Door and box shall be prime-coated inside and out and be field coated **AM# 0001** as indicated in Section 09915: COLOR SCHEDULE .

Fire Extinguisher Cabinet 'A' shall house one fire extinguisher number 1 as specified below. Inside dimensions shall be 12-inches wide, 27-inches high and 8-inches deep.

Fire Extinguisher Cabinet 'B' shall house one fire extinguisher number 1 and one fire extinguisher number 2 as specified below. Inside dimensions shall be 19 3/4-inches wide, 28 3/4-inches high and 8-inches deep.

Fire Extinguisher Cabinet 'C' shall house one fire extinguisher number 1 and as specified below with a compartment below for a 2 1/2-inch fire department valve. Inside dimensions shall be 16-inches wide, 40-inches

high and 9-inches deep.

2.4.2 Fire Extinguisher **AM# 0001 Number 1**

Provide a **AM# 0004** 5 pound ABC multi-purpose dry chemical fire extinguisher at locations shown on drawing **AM# 0001 and indicated in specific cabinets asa specified above.** The extinguisher shall meet NFPA codes governing fire extinguishers, and shall carry a UL and FM approval.

AM# 0001 AM# 0004

2.4.3 Fire Extinguisher Brackets (FE)

Provide a fire extinguisher bracket of 16 gauge steel, red baked enamel, with spring type band and retaining clip as located on the drawing. **AM# 0001 Provide a fire extinguisher number 1 at each bracket.**

2.5 PUBLIC TELEPHONE ENCLOSURES

Public Telephone Enclosures shall match style and type of Model 00615/Trim-Line, Phillips, Brooks and Gladwin. Finish shall be brushed stainless steel with black, molded interior. Interior shall be lighted. The cabinet shall have a narrow depth; 24-inches width by 10-inches depth by 42.75-inches in height. Bottom of enclosure shall be 29.5-inches A. F. F. except for one in **AM# 0001** (ea. floor) shall be mounted 54-inches to coin slot to meet ADA requirements.

2.6 REVOLVING DARKROOM DOOR/LIGHT SEAL

Revolving darkroom door/light seal shall be equal to Model 200ST by Consolidated Door Corporation, Chicago, IL (773-376-5600). Seal shall fit in wall opening 41-inches wide by 80-inches high. Door/seal shall be constructed of concentric cylinder panels, with a 26.5-inch entrance opening. Install door/seal level and plumb to achieve smooth operation **AM# 0001, and per manufacturers recommendations**.

2.7 TELLERS WINDOW

Tellers widow shall be equal to "Walk-up" window with drop-in tray Model 1210-S and 5 FR talk-thru by Creative Industries, Inc. of Indianapolis, IN (317-248-1102).

AM# 0001 2.8 LOCKER ROOM BENCHES

Locker roome benches and pedestals sshall be equal to DeBourgh MFG. Co., LaJuanta, Co. (719-384-8161). Benches shall be 1 1/4-inches thick, 9 1/2-inches wide of butcher block maple hardwood, double coated with a satin-gloss sealer. Pedestals shall be 16-inches high, 1 1/2-inch pipe with bell shaped cast iron base having a diameter of 7 3/4-inches ready to secure to floor with 1/2-inch round by 5 1/2-inch concealed concrete anchors. Pedestals shall be standard powder coat. Benches and pedestals

shall be installed per manufacturers in structions.

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PART 3 EXECUTION

3.1 PREPARATION AND INSTALLATION

Mounting surface preparation and product installation shall be in accordance with the product manufacturer's written recommendations.

3.2 BULLETIN BOARDS

Bulletin boards shall be mounted with the top edge not higher than 6'-6" above the floor.

3.3 CLEANING

Following installation, dirty or discolored surfaces of the products shall be cleaned, with the products left free of defects. Products that are damaged or improperly installed shall be removed and reinstalled or replaced with new products as directed.

-- End of Section --